THE SCOURGE OF LAND MINES

UN tackles hidden peacetime killers

"Of all the tasks involved in setting a nation on a new road to peace and prosperity, perhaps none has the immediate urgency of mine clearance . . . No attempt to restore a sense of community and security can succeed without effective land-mine removal."

United Nations Secretary-General Boutros Boutros-Ghali
Report on the Work of the Organization, September 1993

By Susan Ruel

Peace has returned to Cambodia after 12 years of war, but Cambodians are still dying or getting their arms and legs blown off at the rate of 200 to 300 a month by some 4 million land mines left behind on the killing fields. United Nations experts say this macabre scenario is being repeated from Angola to Afghanistan, as tens of thousands of civilians are killed or mutilated by the estimated 85 to 100 million mines scattered like seeds of death across the globe. Even as the United Nations takes up a major new effort to deal with this menace, thousands more mines are being planted—in the former Yugoslavia alone, at a rate of several thousands a week.

An incident last April in Angola graphically illustrates the terrifying randomness of mines. A World Food Programme relief plane flying over Angola was hit by rebel fire, but its Russian pilot managed, with extraordinary skill and considerable luck, to land the plane. The crew got out of the plane, but stepped right onto a mine, leaving the flight engineer dead and the pilot severely injured.

UNICEF/Lemoyne

Cambodian boy maimed by land mine.

UNITED NATIONS

UN Photo/Isaac

United Nations blue helmets sweep for mines in southern Lebanon.

Mines are blind weapons that cannot distinguish between the footfall of a soldier or that of an old woman gathering firewood.

While much publicity has been given to nuclear and chemical weapons, less attention has been paid to these cheap, low-tech, easily available and deadly armaments. Land mines, many as crudely made as a child's science project, are sometimes described as "eternal sentinels", because they keep shedding blood long after wars end. Because they lie unmarked, they perpetuate a climate of terror even in places where there might be none.

"Mines are fighters that never miss, strike blindly, do not carry weapons openly and go on fighting long after hostilities are ended"; they are the "greatest violators of international humanitarian law, practising blind terrorism", according to a delegate at an International Committee of the Red Cross symposium on mines held in Montreux, Switzerland in April 1993.

"They are blind weapons that cannot distinguish between the footfall of a soldier or that of an old woman gathering firewood", according to the 1991 report *Land Mines in Cambodia: The Coward's War*, published by Asia Watch and Physicians for Human Rights.

Human rights groups warn that the problem is worsening, despite a 1980 international treaty restricting the use of land mines. Some 35 countries manufacture and export land mines; the leaders are China, the Russian Federation and Italy. One device can cost as little as $1. Cheap and easy to use, they are the weapons of choice in many poor countries.

Cambodia's 12-year civil war may have been the first in history in which more people were killed by mines than by any other armament. Today, with one mine for every two inhabitants, Cambodia is thought to have the world's highest percentage of disabled people: one out of 236 Cambodians is an amputee, compared with 1 per 22,000 in the United States. And the toll keeps mounting: in the words of a U.S. prosthetist, "Cambodia is being de-mined an arm and a leg at a time".

There, as in minefields worldwide, civilians continue to be slain years after the shooting stops. From 1945 until 1977, 15 million mines placed in World War II were cleared from Poland, yet 4,000 people were killed there by mines and 9,000 injured over the same period. In Egypt, Libya, Tunisia, the Netherlands and the Russian Federation, mines dating back to the Second World War still endanger civilians.

Afghanistan, Mozambique and Somalia also rank high on this tragic roster, as well as Angola—where most of the 20,000 amputees are women and children. Land mines are present in an estimated 62 countries, among them Armenia, Azerbaijan, Colombia, El Salvador, Ethiopia, Guatemala, Honduras, Iran, Iraq, Kuwait, Laos, Myanmar, Nicaragua, Peru, Rwanda, Sudan, Uganda, Vietnam, and the former Yugoslavia. Due to land-mine pollution, vast areas of the globe have become permanent no-go areas. Australia and Antarctica are perhaps the only continents free of minefields.

In addition to endangering human life, land mines disrupt transportation and agriculture, despoil the environment and obstruct relief efforts and the resettlement of refugees. "Relief assistance, repatriation and rehabilitation will continue to be seriously hampered unless de-mining is vigorously pursued", says Jan Eliasson, the United Nations Under-Secretary-General for Humanitarian Affairs.

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In Somalia, a representative of Médecins Sans Frontières said returning refugees were so fearful of entering their mine-filled houses that they continued living in tents. In northern Iraq, whole villages have been surrounded by mine-fields, making them impossible to re-enter. In Angola, some of Africa's most arable land goes untilled, contributing to widespread malnutrition, because farmers fear death or dismemberment by mines.

"Land mines . . . have ruinous effects on the human body; they drive dirt, bacteria, clothing, metal and plastic fragments into the tissue, causing secondary infections", according to the December 1991 issue of the *British Journal of Medicine*. "The shock wave from an exploding mine can destroy blood vessels well up the leg, causing surgeons to amputate much higher than the site of the primary wound . . . Plastic fragments are difficult to detect by X-ray."

State-of-the-art mines are designed to maim but not kill, and surgeons find that the "lethal radius" of a mine encompasses one or both legs, the genitals, arms, chest and face. "Butterfly mines"—one of 20 varieties manufactured in eight nations, and dropped from the air over Afghanistan—are designed to look innocuous: they have been a particularly pernicious source of injury to children who pick them up to play with.

About half of those struck by mines never make it to a clinic or hospital. Those who do find that the surgery needed is so complex that few surgeons are trained to perform it, or that the medical facilities available are inadequate. In Somalia in 1991, two women, one Somali and the other a Dutch refugee worker, had their legs torn off by land mines, only to find that aspirin was the only painkiller available once they reached the only hospital in the area, according to a report in *The Independent*.

This year, for the first time, the question of assistance in mine clearance will be addressed by the United Nations General Assembly, in an effort to help affected countries and address the urgent need for new techniques to defuse mines on a large scale.

At present, the most effective method of demining involves a process that combines the use of human beings, machines and dogs. The first problem in mine clearance is the detection of the mines, which may be buried as much as one metre below ground level. Electronic devices are used to detect the small amounts of metal in mines, usually in conjunction with a method known as "prodding", where a probe is gently inserted into the ground at an angle, until it just touches the mine. Detection by electronic means and by prodder is painstakingly slow and expensive, yet it offers a much higher rate of accuracy than other methods. Dogs detect mines by the smell of the explosive in them. When well-trained, they are

very effective, and at least 68 dogs are currently used in United Nations mine-clearing operations in Afghanistan, supplementing the work done by human operators.

A Scottish "flail" device, invented in the 1940s, features rotating chains that rip through land mines. It is effective but slow in mountain and desert terrains, clearing only about a kilometre an hour, but would bog down if used in the wet flatlands of Cambodia. Its percentage of clearance is not high enough to meet the stringent 99.9 per cent standards of de-mining necessary to permit people safely to resume their normal lives.

Little research has been done on new technologies for mine clearance. Most of the equipment in use today is derived from technology developed in the 1940s, and is usually incapable of meeting the de-mining standards required. Even the most sophisticated detectors still rely on the small amounts of residual metal in mines for their detection. The problem of non-metallic mines has not been solved, but ongoing work in the area of ground-penetrating radar could provide the basis for new mine-detection systems.

The United Nations is already actively involved in de-mining programmes. In 1988, with the advent of the United Nations Coordination Office for Assistance to Afghanistan, the United Nations was for the first time given a mandate to clear mines. Now, United Nations teams are at work in Afghanistan, Cambodia, Mozambique and the former Yugoslavia, and are training local people in clearance techniques. The United Nations also organizes training programmes for those living in mined areas, especially returning refugees and displaced persons.

"Plans are under way to institute similar programmes in Liberia, Rwanda and Somalia", says Kofi Annan, the United Nations Under-Secretary-General for Peace-Keeping Operations. "Mine clearing is very much part of current United Nations operations, both peace-keeping and humanitarian. We are only now beginning to discover just how vital mine clearance is to every facet of United Nations operations".

UNICEF/Isaac

Afghanistan: a man and a boy learn to walk with artificial limbs.

The difficulties and dangers of this task cannot be overstated. In 10 months of non-UN demining operations in Kuwait, where millions of mines were sown during the Gulf War, 84 foreign and local experts were killed in the process. At least 16 United Nations staff members have died and 62 have been injured in similar operations in Afghanistan, where approximately 30 United Nations teams operate. At the United Nations Cambodian Mine Action Centre, it takes a team of

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Kofi Annan, United Nations Under-Secretary-General for Peace-keeping Operations

20 trained workers a week to clear a piece of jungle the size of two football fields. It has been estimated that with current technology, at a rate of 30 square kilometres a year, it could take more than 4,300 years to clear 20 per cent of the land in Afghanistan, the country which is believed to have the world's highest number of mines. However, the clearance of much of the most important and productive farm land will be finished in six years.

United Nations experience in Afghanistan and Cambodia shows that the most effective clearance teams are those involving the local people as much as possible, to ease communication and to increase trust and confidence in the programme. In such schemes, teams of mine clearers are recruited locally and trained in their own country, under the guidance of United Nations mine clearance experts. But the magnitude of the task, its complexity and cost require greater funding and attention from the international community: for instance, the ongoing de-mining programme in Afghanistan has had to cease periodically, and teams have had to be laid off, for lack of funds.

In 1980, the United Nations concluded the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, and a related Protocol on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices. These instruments entered into force in December 1983, barring the use of land mines against civilians, forbidding the distribution of "remotely delivered" mines planted by plane unless records are kept on where mines are sown, requiring record-keeping of all mine placement and urging a commitment to destroy them once the conflict ends. But only 36 nations have ratified these treaties.

The International Committee of the Red Cross and a number of other international organizations and NGOs are calling for the strengthening of the United Nations treaty on land mines. Among their proposals are the inclusion in the treaty of a verification mechanism; extension of the ban to include the internal, ethnic conflicts now prevalent in the post-cold war period; and a clause to ensure that land mines are manufactured to be detectable and endowed with a self-destructive capacity once hostilities cease. At present, most of the mines being manufactured have no expiration date. An increasing number are made of plastic or wood, making them difficult to detect.

Some countries are taking action. The United States, not yet a party to the Convention and Protocol, passed in October 1992 a one-year moratorium on the manufacture and export of land

ESTIMATED NUMBER OF LAND MINES

Most Affected Countries and Territories

Afghanistan	9-10 million
Angola	9 million
Iraq	5-10 million
Kuwait	5 million
Cambodia	4-7 million
Western Sahara	1-2 million
Mozambique	1-2 million
Somalia	1 million
Bosnia and Herzegovina	1 million
Croatia	1 million

(Source: United Nations and United States Department of State)

mines, even though U.S. production is minuscule. United States Senator Patrick Leahy, who was behind the moratorium, is now calling for a three-year extension.

France also recently announced an export ban, and Belgium is reportedly ready to do the same; both countries have been active in the international campaign against land-mine proliferation. The European Parliament has called for a five-year export moratorium, and it was the European Community which introduced the question of mine clearance in the agenda of the United Nations General Assembly.

The United Nations de-mining expert, Patrick Blagden, says a Herculean task lies ahead: the slow, labour-intensive process of defusing millions of mines worldwide (at an approximate cost, using current methods, of $1,000 each), stricter enforcement of the terms of the treaty and the eventual ban of all manufacture and use.

Mr. Blagden stresses the need to communicate the horrors of land-mine proliferation to the world community: "Until there is complete public rejection of the use of anti-personnel mines, just as there is for chemical and nuclear weapons, the ban won't get very far."

UNICEF/Isaac

This Afghan girl lost a leg in a land-mine explosion.

The end of the cold war provides an opportunity to curb the spread of this scourge and to uproot the millions of land mines infesting many former war zones. But even as United Nations experts and the international community look at new ways to deal with this scourge, tens of thousands of mines are being laid in war-torn regions, and another 100 million are stockpiled around the world. Only a much more determined international action can counter what Mr. Eliasson calls "an affront to the international conscience".

Before the century is over. . .

The gravity and cruelty of the threat posed by land mines cannot be overemphasized. Tens of millions of mines . . . remain scattered around in former combat zones, taking and jeopardizing innumerable lives and impeding the restoration of normalcy. Experts estimate that it could take 40 to 50 years to get rid of these mines. The international community should take it upon itself to end this fatal scourge—this delayed form of warfare—before the century is over.

Jan Eliasson, United Nations Under-Secretary-General for Humanitarian Affairs

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